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AMERICAN DAIRY REVIEW

Tracking Study Of Industry Suppliers

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AMERICAN DAIRY REVIEW TRACKING STUDY OF INDUSTRY SUPPLIERS

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June 1980

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The purpose of this survey was to obtain a current measure of dairy industry suppliers in terms of the comparative number of dairy plants they have as customers - for each of a comprehensive list of products.

SURVEY METHOD

Sample Design: Every nth name was systematically drawn from the American Dairy Review March 1980 qualified U.S. circulation list of fluid milk, ice cream, and milk products processing plants and distributor-only plants - selecting only one name per plant so that every respondent would represent an unduplicated dairy plant. The value of n was such as to cover the list and yield some 900 names. The list was arranged according to alpha-numeric identification number systematically assigned by computer analysis of each recipient's last name.

Sample Size:

Number in mailing sample....	900
Number of returns.....	443
Number of usable returns....	422
Number of unusable returns..	21
Percent response.....	49.2%

Questionnaire Design: The questionnaire - that appears near the back of this report - was designed to cover the product categories of interest to the American Dairy Review marketing staff. The order, arrangement, and wording of the questions were guided by generally accepted mail survey technique.

Mailing Procedure: Computer-printed control cards containing the survey sample names and other information were numbered consecutively. Each questionnaire mailed was also numbered to match the recipient's control card number.

The first mailing went out March 3 1980. About a week later a post card reminder was sent to each person on the sample list.

A follow-up questionnaire was mailed March 24th to all non-respondents. About a week later a second post card reminder went out to all non-respondents.

Tabulation and Report Writing: The survey returns were computer-tabulated by Analytical Computer Service, Inc., Chicago, and by the Watt Publishing Company Research Section which wrote this report.

TITLES OF RESPONDENTS

"What is your own title or chief job responsibility?"

	Percent of Dairy Plants Reporting
Respondents..	379
President, President and General Manager.....	18%
Vice President, V.P. and General Manager.....	10%
Controller, Secretary, Treasurer, Sec.-Treas.....	4%
Owner, Partner.....	12%
(Total Corporate Officers and Owners.....	44%)
Manager, General Manager.....	20%
(Total General Management.....	64%)
Plant Manager.....	11%
Manager; Production, Operations.....	4%
Plant Superintendent, Supervisor.....	4%
Miscellaneous Production Titles.....	2%
Engineer; Chief, Plant.....	1%
Quality Assurance Manager, Quality Control.....	3%
(Total General and Plant Management.....	89%)
Manager; Branch, Division, Sales, District.....	6%
Purchasing Director, Agent.....	1%
Bookkeeper.....	1%
Office Manager.....	1%
Other Miscellaneous Titles.....	2%

Throughout this report, "dairy plants" refers to the approximately 4,380 dairy processing and distribution-only plants on the March 1980 American Dairy Review U.S. circulation list including fluid milk plants, ice cream plants, and milk products plants.

GENERAL CHARACTERISTICS OF DAIRY PLANTS

PROCESSING VS. DISTRIBUTING ONLY

"Does the establishment at this location process dairy products, or only distribute them?"

	Percent of Dairy Plants Reporting
Respondents.. 422	
Process one or more dairy products.....	80%
Distribute only.....	20%

PRODUCTS PROCESSED

"If this plant processes dairy products, which one(s)?"

	Dairy Processing Plants Reporting	
	Number	Percent
	332	100%
Packaged fluid milk	151	45%
Cottage cheese	40	12%
Other cultured dairy products	69	21%
(Either or both of preceding two items	77	23%)
Ice cream	122	37%
Cheese, natural or process	90	27%
Butter	37	11%
Other processed dairy products (dry, evaporated, or condensed milk, etc.)	43	13%

Part I - PROCESS and PLANT EQUIPMENT and SUPPLIES

1. Processing Equipment

2. Materials Handling, Transporation and Refrigeration

3. Sanitation, Conveyor Lubrication

1. PROCESSING EQUIPMENT

HTST HEAT EXCHANGERS

"Who made your HTST heat exchanger?"

Percent of (312 answering) dairy processing plants having any..... 79%

	Among Dairy Processing Plants That Have HTST Heat Exchangers, Percent Reporting
Respondents..	246
Cherry-Burrell.....	27%
Crepaco.....	23%
A.P.V.....	20%
DeLaval (Alfa-Laval).....	19%
Chester-Jensen.....	11%
York.....	5%
Kusel Equipment.....	4%
Other.....	5%

Average number of suppliers per user plant..... 1.1

CRYOSCOPES

"Who is the manufacturer of your cryoscope?"

Percent of (294 answering) dairy processing plants having any..... 24%

	Among Dairy Processing Plants That Have A Cryoscope, Percent Reporting
Respondents..	71
Advanced Instruments.....	48%
Fiske.....	39%
Precision Systems.....	17%
Other.....	-

Average number of suppliers per user plant..... 1.0

SOLIDS/MOISTURE ANALYZERS

"Who provided your solids/moisture analyzer?"

Percent of (278 answering) dairy processing plants having any..... 32%

	Among Dairy Processing Plants That Have A Solids/Moisture Analyzer, Percent Reporting
Respondents..	88
Foss America.....	18%
*Mojonnier.....	14%
Photovolt.....	9%
*Apollo.....	7%
Accurate Metering Systems.....	6%
CEM Corporation.....	6%
*Cenco.....	6%
*OHAUS.....	5%
Berwind Instruments.....	2%
Motorola.....	2%
*Miscellaneous (mentioned once each)..	19%
Other, not specified.....	8%

Average number of suppliers per user plant..... 1.0

*Written-in by respondents.

FAT ANALYZER

"Who provided your fat analyzer?"

Percent of (275 answering) dairy processing plants having any..... 48%

	Among Dairy Processing Plants That Have A Fat Analyzer, Percent Reporting
Respondents..	131
Foss America.....	46%
*Babcock.....	14%
*Mojonnier.....	9%
Economics Laboratory.....	8%
On-Line Instrumentation.....	5%
*Cherry-Burrell.....	2%
*Garver.....	2%
Accurate Metering Systems.....	1%
American Metering Systems.....	1%
Computer Concepts.....	1%
*Miscellaneous (mentioned once each).	11%
Other, not specified.....	2%

Average number of suppliers per user plant..... 1.0

*Written-in by respondents.

ICE CREAM FREEZERS

"Who made your ice cream freezer(s)?"

	Percent of Ice Cream Manufacturing Plants Reporting
Respondents..	113
Cherry-Burrell.....	58%
Crepaco.....	27%
Emery Thompson.....	21%
*Mills.....	3%
Hoyer.....	2%
*Taylor.....	2%
*Miscellaneous (mentioned once each).....	4%

Average number of suppliers per user plant..... 1.2

*Written-in by respondents.

NOVELTY-MAKING EQUIPMENT

"Who manufactured your novelty-making equipment?"

Percent of (111 answering) ice cream-making plants having any..... 32%

	Among Ice Cream-Making Plants That Have Novelty-Making Equipment, Percent Reporting
Respondents..	35
FMC, Vitafreze Equipment/Polarmatic.....	57%
Drumstick Div. of Big Drum....	40%
Burry.....	17%
Gram Equipment of America.....	14%
Interbake Foods.....	14%
Popsicle.....	14%
Sumner H. Bates.....	9%
Eskimo Pie.....	9%
Hoyer.....	6%
*Maryland Cup.....	6%
Le Roy Enterprises.....	3%
National Ice Cream Ent.....	3%
*Miscellaneous (mentioned once each).....	14%

Average number of suppliers per user plant..... 2.1

*Written-in by respondents.

EVAPORATORS, DRYERS

"What make(s) of evaporator and/or dryer do you have?"

Percent of (233 answering) dairy processing plants having any..... 23%

	Among Dairy Processing Plants That Have Evaporators and/or Dryers, Percent Reporting
Respondents..	53
C. E. Rogers.....	36%
*Blaw Knox.....	17%
*Mojonnier.....	13%
*Hensey.....	11%
A.P.V.....	9%
Marriott Walker.....	8%
*Buflovoc.....	4%
Damrow.....	4%
*Harris.....	4%
Maxum Engineering.....	4%
Wiegand Evaporators.....	2%
*Miscellaneous (mentioned once each).....	11%

Average number of suppliers per user plant..... 1.2

*Written-in by respondents.

PUMPS, VALVES

"Who made the pumps and valves you use to control liquid product flow?"

Percent of (299 answering) dairy processing plants pumping liquid product..... 88%

Among Dairy Processing Plants That Use Pumps and/or Valves to Control Liquid Product Flow, Percent Reporting

Respondents.. 262

Ladish, Tri-Clover Div.	61%
Cherry-Burrell	42%
Waukesha Foundry	40%
Crepaco	38%
G & H Products	20%
Alfa-Laval (De Laval Separator)	13%
A.P.V	8%
L. C. Thomsen & Sons	6%
Alloy Products	3%
Sta-Rite Industries	2%
Tanaco Products	2%
Tri-Canada	2%
Superior Stainless Inc	1%
Other	2%

Average number of suppliers per user plant..... 2.4

2. MATERIALS HANDLING, TRANSPORTATION AND REFRIGERATION

PLASTIC, WIRE MILK CASES

"Who made your plastic or wire milk cases?"

Percent of (146 answering) fluid milk packaging plants using any..... 89%

Among Fluid Milk Packaging Plants That Use Plastic or Wire Milk Cases, Percent Reporting	
Respondents..	130
Rehrig-Pacific.....	38%
Cumberland.....	24%
United Steel and Wire.....	13%
Erie Crate & Mfg.....	12%
Tedruth Plastics.....	12%
Piper Industries, Wire Products Div.....	8%
Amoco Chemicals.....	6%
Langer Mfg.....	3%
*Lustra Ware.....	2%
Scepter.....	1%
*Miscellaneous (mentioned once each).....	8%
Other, not specified.....	3%

Average number of suppliers per user plant..... 1.3

*Written-in by respondents.

ICE CREAM DISPLAY CABINETS

"What make(s) of ice cream display cabinets do you use?"

Percent of (109 answering) ice cream manufacturing plants using any..... 78%

	Among Ice Cream-Making Plants That Use Ice Cream Display Cabinets, Percent Reporting
Respondents..	85
Kelvinator Commercial Products.....	62%
Schaefer.....	44%
Universal/Nolin.....	22%
Hussman.....	18%
Master-Bilt Products.....	13%
Mohawk Cabinet.....	9%
C. Nelson Mfg.....	9%
Grand Rapids.....	8%
Star Cooler.....	5%
Coldin Cabinet.....	1%
Evans Mfg.....	1%
Other.....	6%

Average number of suppliers per user plant..... 2.0

CONVEYORS

"Who provided your materials or product conveyor(s)?"

Percent of (261 answering) dairy processing plants having any..... 54%

	Among Dairy Processing Plants That Have Materials or Product Conveyors, Percent Reporting
Respondents..	142
Mojonnier Bros.....	30%
Ex-Cell-O Materials Handling....	27%
Crepaco.....	22%
Dairy Conveyor.....	20%
G. W. Haab.....	5%
*Arrowhead Conveyor.....	1%
*Cherry-Burrell.....	1%
*Conveyor Specialties.....	1%
*Rapistan.....	1%
*Miscellaneous (mentioned once each).....	12%
Other, not specified.....	3%

Average number of suppliers per user plant..... 1.2

*Written-in by respondents.

TRUCK BODIES

"Who supplied your wholesale delivery insulated truck bodies?"

Percent of (334 answering) dairy plants having any..... 58%

	Among Dairy Plants That Have Wholesale Delivery Insulated Truck Bodies, Percent Reporting
Respondents..	194
Hackney Bros. Body.....	36%
Murphy Manufacturing.....	25%
Johnson Truck Bodies.....	14%
Atlas Truck Body.....	8%
Hercules.....	4%
*Millington.....	4%
*American.....	2%
Morgan Trailer.....	2%
*Utility.....	2%
*Batavia.....	1%
*Jannell.....	1%
*Keystone.....	1%
Kidron Body.....	1%
*Polar.....	1%
*Schnabel.....	1%
*Tempte.....	1%
*Miscellaneous (mentioned once each).....	13%

Average number of suppliers per user plant..... 1.2

*Written-in by respondents.

LARGE TRUCKS, TRACTORS

"Who made your larger trucks and tractors - those with a gross vehicle weight of 20,000 lbs. and over?"

Percent of (375 answering) dairy plants having trucks of that size..... 65%

	Among Dairy Plants That Have Trucks or Tractors With G.V.W. of 20,000+ Percent Reporting
Respondents..	243
International Harvester.....	51%
Ford.....	40%
GMC.....	28%
Chevrolet.....	19%
Mack.....	12%
White.....	8%
Peterbilt.....	4%
Mercedes-Benz.....	3%
Diamond Reo.....	2%
Dodge.....	1%
Other.....	2%

Average number of suppliers per user plant..... 1.7

TRAILER REFRIGERATION UNITS

Suppliers of Dairy Plant Trailer Refrigeration Units

Percent of (359 reporting) dairy plants having any..... 50%

	Among Dairy Plants That Have Trailer Refrigeration Units, Percent Reporting
Respondents..	178
Thermo King.....	90%
Carrier-Transicold.....	11%
Dole Refrigerating.....	4%
Trane.....	4%
Other.....	3%

Average number of suppliers per user plant..... 1.1

3. SANITATION, CONVEYOR LUBRICATION

CONVEYOR LUBRICATION

"Which conveyor chain lubrication did you use in 1979?"

Percent of (255 answering) dairy processing plants using any..... 55%

	Among Dairy Processing Plants That Lubricate Conveyor Chains, Percent Reporting
Respondents..	140
Klenzade Div. of Economics Laboratory.....	37%
BASF Wyandotte.....	19%
Diversey Chemical.....	9%
Stauffer Chemical.....	6%
A. C. Fergusson.....	5%
Bonewitz Chemical.....	4%
Dubois Chemicals.....	3%
Peck's Products.....	2%
*Pennwalt.....	2%
*Time.....	2%
*Antical.....	1%
*Chemco.....	1%
*Martin.....	1%
*North Coast Chemical.....	1%
*Southland Chemical.....	1%
*Miscellaneous (mentioned once each).....	9%
Other, not specified.....	4%

Average number of suppliers per user plant..... 1.1

*Written-in by respondents.

CLEANERS, SANITIZERS

"Who supplied your cleaners and sanitizers in 1979?"

	Percent of Dairy Processing Plants Reporting
Respondents..	312
Klenzade	37%
BASF Wyandotte	24%
Diversey	13%
H. B. Fuller, Monarch Chemicals Div.	12%
Pennchem Dept. (Pennwalt Corp.)	7%
Stauffer Chemical	6%
Bonewitz	4%
Oakite Products	4%
Dubois Chemical	3%
A. C. Fergusson	3%
West Agro Chemical	3%
*Antical	2%
*Chemco	2%
Time	2%
*Anderson	1%
Chemidyne	1%
*Desachem Corp	1%
*Merit Chemical	1%
*Morgan-Gallagher	1%
Morton Salt	1%
*North Coast Chemical	1%
*Shepard Bros	1%
Southland Chemicals	1%
*U.S. Chemical	1%
*Wal Chem	1%
*Miscellaneous (mentioned once each)	9%
Average number of suppliers per user plant	1.4

*Written-in by respondents.

Part II - PACKAGING EQUIPMENT and SUPPLIES

CARTONS (MILK)

"Which paper cartons for fluid milk did you use in 1979?"

Percent of (149 answering) fluid milk packaging plants using any..... 89%

	Among Plants Packaging Fluid Milk In Paper Cartons, Percent Reporting
Respondents..	132
International Paper, Liquid Packaging Div.....	39%
Dairy-Pak.....	27%
Weyerhaeuser.....	26%
Potlatch, Packaging Div.....	10%
Westvaco Milk Carton Div.....	8%
Other.....	5%

Average number of suppliers per user plant..... 1.2

RESINS

"Which HDPE resin(s) for your in-plant blow-molded single service plastic milk-jugs did you use in 1979?"

Percent of (143 answering) fluid milk packaging plants making single service blow-molded plastic milk-jugs..... 24%

Among Fluid Milk Packaging Plants That Make Blow-Molded Single Service Milk-Jugs, Percent Reporting

Respondents..	35
Soltex Polymer.....	31%
Allied Chemical.....	23%
Amoco Chemicals.....	14%
USI Chemicals.....	14%
Phillips.....	11%
Dow Chemical.....	6%
Chemplex.....	3%
Gulf.....	3%
Other.....	11%

Average number of suppliers per user plant..... 1.2

POLYCARBONATE CONTAINERS (MILK)

"Who supplied your returnable polycarbonate milk containers?"

Percent of (144 answering) fluid milk packaging plants using any..... 15%

Among Fluid Milk Packaging Plants That Use Returnable Polycarbonate Milk Containers, Percent Reporting

Respondents.. 21

Mobay Chemical.....	43%
Liqui-Box.....	38%
Graham Polytrip.....	14%
Other.....	4%

Average number of suppliers per user plant..... 1.0

FILLING EQUIPMENT (MILK)

"Who made your milk filling equipment?"

GALLON Fillers

Percent of (146 answering) fluid milk packaging plants having any..... 84%

	Among Plants Packaging Fluid Milk In Gallon Containers, Percent Reporting
Respondents..	122
Federal Mfg.....	52%
Ex-Cell-O.....	28%
Cherry-Burrell.....	24%
Fogg Filler.....	12%
Hercules.....	11%
Filler Specialties.....	7%
Remy.....	2%
Other.....	5%

Average number of suppliers per user plant..... 1.4

"Who made your milk filling equipment?"

ONE-HALF GALLON Fillers

Percent of (148 answering) fluid milk packaging plants having any..... 89%

	Among Plants Packaging Fluid Milk In One-Half Gallon Containers, Percent Reporting
Respondents..	131
Ex-Cell-O.....	47%
Cherry-Burrell.....	31%
Federal Mfg.....	13%
Hercules.....	11%
NIMCO.....	4%
Filler Specialties.....	2%
Fogg Filler.....	1%
Other.....	5%

Average number of suppliers per user plant.... 1.1

"Who made your milk filling equipment?"

QUART, PINT, ONE-HALF PINT Fillers

Percent of (145 answering) fluid milk packaging plants having any..... 87%

Among Plants Packaging Fluid Milk In Quart, Pint, and/or One-Half Pint Containers, Percent Reporting

Respondents..	126
Ex-Cell-O.....	51%
Cherry-Burrell.....	45%
Hercules.....	13%
NIMCO.....	3%
Filler Specialties.....	1%
Milliken Packaging.....	1%
Pitcher Pak.....	1%
Other.....	4%

Average number of suppliers per user plant.... 1.2

PLASTIC CLOSURES

"Which plastic closures for milk bottles did you use in 1979?"

Percent of (149 answering) fluid milk packaging plants using any..... 70%

	Among Plants Using Plastic Closures For Milk Bottles, Percent Reporting
Respondents..	104
Dairy Cap.....	30%
Blackhawk Molding.....	22%
Northern Engineering & Plastics (NEPCO).....	17%
Champion Packages, Midwest-Pak Div.....	12%
Cap Snap Seal.....	8%
Alcoa.....	5%
Owens-Illinois.....	5%
Seal-Kap Packaging.....	2%
Segen Industries.....	2%
Crown Zellerbach.....	1%
Sun Industries (KLM).....	1%
Other.....	5%

Average number of suppliers per user plant..... 1.1

BULK DISPENSER-PACKAGING SYSTEMS

"Which bulk milk/ice cream dispenser-packaging system(s) did you use in 1979?"

Percent of (139 answering) fluid milk packaging plants using any..... 63%

Among Fluid Milk Plants Using Bulk Milk/Ice Cream Dispenser-Packaging Systems, Percent Reporting

Respondents..	88
Scholle.....	31%
B-Bar-B.....	30%
Liqui-Box.....	30%
Parish Manufacturing....	8%
General Films.....	1%
Other.....	3%

Average number of suppliers per user plant..... 1.0

FILLERS (ICE CREAM)

"Who manufactured your ice cream carton filler(s)?"

	Percent of Ice Cream Manufacturing Plants Reporting
Respondents..	80
Anderson Bros.....	73%
Sealright.....	30%
Lily Div., Owens-Illinois.....	8%
*Maryland Cup.....	6%
*Sweetheart.....	5%
*Rutherford.....	3%
*Miscellaneous (mentioned once each).....	9%

Average number of suppliers per user plant..... 1.3

*Written-in by respondents.

CARTONS (ICE CREAM)

"Which manufacturer's ice cream cartons did you use in 1979?"

Percent of (113 answering) ice cream manufacturing plants using any..... 97%

	Among Ice Cream-Making Plants That Use Ice Cream Cartons, Percent Reporting
Respondents..	110
Sealright.....	53%
Maryland Cup.....	35%
Brown.....	26%
Blanke-Baer.....	15%
American Can.....	14%
Champion Packages.....	13%
St. Regis.....	13%
G. P. Gundlach.....	8%
Eskimo Pie.....	7%
Container Corp. of America....	5%
Economy Folding Box.....	4%
Olinkraft.....	4%
Potlatch Packaging Div.....	4%
*Fold Pak.....	3%
*Burd/Fletcher.....	3%
Cardinal.....	2%
Fantasy Flavors.....	2%
*Federal Paper Co.....	2%
*Lily Div.....	2%
*Pereles Bros. Div.....	2%
*Rendoll.....	2%
International Paper, Liquid Packaging Div.....	1%
*Miscellaneous (mentioned once each).....	15%

Average number of suppliers per user plant..... 2.4

*Written-in by respondents.

CUPS (CULTURED PRODUCTS)

"Which manufacturer's cups did you use for packaging cultured products in 1979?"

Percent of (74 answering) cultured dairy product manufacturing plants using any..... 85%

	Among Plants Making Cultured Dairy Products and Packaging Them In Cups, Percent Reporting
Respondents..	63
International Paper.....	27%
Maryland Cup.....	25%
Lily Div. of Owens-Illinois.....	22%
Sealright.....	22%
Foster Grant.....	10%
Rexcel.....	6%
*Fabri-Kal.....	6%
Conex.....	3%
Continental Can.....	3%
Dow.....	3%
*Mammoth.....	3%
Amoco Chemicals.....	2%
*Miscellaneous (mentioned once each).....	13%

Average number of suppliers per user plant..... 1.5

*Written-in by respondents.

FILLERS (CUP)

"Who manufactured your cultured product cup filler(s)?"

	Among Plants Making Cultured Dairy Products And Packaging Them In Cups, Percent Reporting
Respondents..	50
Anderson Bros. Mfg.....	70%
Maryland Cup.....	14%
Owens-Illinois.....	12%
Sealright.....	6%
*Rutherford.....	4%
*Triangle.....	4%
American Can.....	2%
*Miscellaneous (mentioned once each).....	8%
Other, not specified.....	2%

Average number of suppliers per user plant..... 1.2

*Written-in by respondents.

FILM, PLASTIC BAGS

"Do you package cheese in rolled film or plastic bags?"

Percent of (102) natural or process cheese manufacturing plants answering "Yes"..... 70%

"Who made the film you used in 1979?"

	Among Plants That Package Cheese In Rolled Film Or Plastic Bags, Percent Reporting
Respondents..	67
Cryovac.....	55%
American Can.....	28%
Milprint.....	22%
Curwood.....	19%
Dow.....	9%
Union Carbide.....	7%
St. Regis.....	6%
Vilutis.....	6%
General Films.....	4%
B-Bar-B.....	1%
*Miscellaneous (mentioned once each).....	12%
Other, not specified.....	1%

Average number of suppliers per user plant..... 1.7

*Written-in by respondents.

CHEESE-WRAPPING MACHINES

"Who manufactured the cheese-wrapping machine(s) you use?"

	Among Plants That Package Cheese In Rolled Film Or Plastic Bags, Percent Reporting
Respondents..	57
Cryovac.....	37%
Tipper-Tie.....	35%
Koch Supplies.....	16%
Hayssen Mfg.....	14%
Len E. Ivarson.....	9%
*Swiss Vac.....	9%
American Can.....	5%
*FMC.....	4%
*Vilutis.....	4%
Milprint.....	2%
Standard Packaging.....	2%
*Miscellaneous (mentioned once each).....	18%

Average number of suppliers per user plant..... 1.5

*Written-in by respondents.

Part III - INGREDIENTS and BASES

CHOCOLATE FLAVORINGS

Used in 1979 ice cream production

Percent of (121 answering) ice cream manufacturing plants using any..... 96%

	Among Ice Cream-Making Plants That Used Chocolate Flavorings, Percent Reporting
Respondents..	116
Blanke Baer	35%
Robert A. Johnston	35%
Ambrosia Chocolate	28%
Shade Foods	18%
J. Hungerford Smith	18%
Heath	16%
Virginia Dare Extract	16%
American Food Labs	14%
National Flavors (Bowey/Krim-Ko)	12%
Eskimo Flavors	11%
C. J. Van Houten	11%
Alpha Aromatics	10%
Consolidated Flavor	9%
David Michael	9%
*Forbes	9%
Popsicle	9%
Richardson & Holland	9%
Fantasy Flavors	7%
Hooton Chocolate	7%
Van Leer	6%
Borden	5%
Diamond Shamrock	5%
Bessire	3%
Continental Colloids	3%
*Guittard	3%
*Star-Kay White	3%
Ritter	2%
*Miscellaneous (mentioned once each)	11%

Average number of suppliers per user plant..... 3.2

*Written-in by respondents.

VANILLA FLAVORINGS

Used in 1979 ice cream production

Percent of (122 answering) ice cream manufacturing plants using any..... 97%

	Among Ice-Cream Making Plants That Used Vanilla Flavorings, Percent Reporting
Respondents..	118
Virginia Dare Extract.....	20%
Beck Vanilla Products.....	19%
David Michael.....	15%
Blanke Baer.....	14%
Nielsen-Massey Vanillas.....	14%
Northville Labs.....	14%
American Food Labs.....	8%
Alpha Aromatics.....	6%
*Lochhead Mfg.....	4%
National Food Ingredient.....	4%
*Foote & Jenks.....	3%
*Mother Murphy.....	3%
*Star Kay White.....	3%
Consolidated Flavor.....	2%
*Crescent.....	2%
*Dennery.....	2%
*Gumpert.....	2%
*Van Labs.....	2%
*Miscellaneous (mentioned once each).....	12%

Average number of suppliers per user plant..... 1.5

*Written-in by respondents.

FRUIT, FRUIT FLAVORS

Used in 1979 ice cream production

Percent of (122 answering) ice cream manufacturing plants using any..... 96%

Among Ice Cream-Making Plants That Used Fruit and Fruit Flavors, Percent Reporting

Respondents.. 117

Blanke Baer	61%
J. Hungerford Smith	28%
Virginia Dare Extract	26%
Guernsey Dell	19%
Alpha Aromatics	15%
Richardson & Holland	15%
Eskimo Flavors	14%
Fantasy Flavors	13%
American Food Labs	12%
Shade Foods	11%
Consolidated Flavor	9%
David Michael	9%
Northville Labs	9%
Star Kay White	9%
G. P. Gundlach	7%
National Food Ingredient	7%
Dari-Tech	6%
Bessire	3%
Borden	3%
Diamond Shamrock	3%
*Gumpert	3%
*Cino	2%
Dickinson Family	2%
*Foote & Jenks	2%
*Limpert	2%
*Ramsey	2%
Smuckers	1%
*Miscellaneous (mentioned once each)	10%

Average number of suppliers per user plant..... 3.0

*Written-in by respondents.

Used in 1979 ice cream production

Percent of (106 answering) ice cream manufacturing plants using any..... 91%

	Among Ice Cream-Making Plants That Used Nuts, Percent Reporting
Respondents..	96
California Almond Growers (Blue Diamond)....	29%
Ace Pecan.....	18%
Diamond/Sunsweet (formerly Diamond Walnut Growers)...	15%
Hammons Products.....	11%
Funsten Nut Div. of Pet Foods.....	10%
*Hillson.....	9%
*San Filippo.....	6%
*Jack Gronik.....	5%
Continental Nut.....	4%
*Tracy Lucky.....	4%
Jimbos Jumbos.....	3%
T. M. Duche' Nut.....	2%
*Peterson.....	2%
*Orangebury Pecan.....	2%
*Sunshine Pecan.....	2%
*Superior Nut.....	2%
Tenneco West (Sun Giant)....	2%
*Wrigley Nut.....	2%
*Miscellaneous (mentioned once each).....	21%

Average number of suppliers per used plant..... 1.5

*Written-in by respondents.

STABILIZERS, EMULSIFIERS

Used in 1979 ice cream production

Percent of (118 answering) ice cream manufacturing plants using any..... 84%

Among Ice Cream-Making Plants That Used Stabilizers and Emulsifiers, Percent Reporting

Respondents.. 99

Germantown Manufacturing....	48%
Dari-Tech.....	21%
Star Blends.....	17%
Continental Colloids.....	16%
Stein Hall.....	12%
Crest.....	9%
Stauffer Chemical (Milk Proteins).....	9%
American Food Labs.....	6%
Blanke-Baer.....	6%
Diamond Shamrock (formerly Vitex American).....	5%
Virginia Dare Extract.....	5%
Popsicle.....	4%
Alpha Aromatics.....	3%
Borden.....	3%
David Michael.....	3%
Stabilized Products.....	2%
Consolidated Flavor.....	1%
FMC Food and Pharmaceutical Div.....	1%
Grindsted.....	1%
*Miscellaneous (mentioned once each).....	7%
Other, not specified.....	1%

Average number of suppliers per user plant..... 1.8

*Written-in by respondents.

FLAVORINGS (CULTURED PRODUCT)

"If you make cottage cheese or yogurt, who supplied the flavorings in 1979?"

Percent of (65 answering) cottage cheese or yogurt manufacturing plants using any..... 49%

Among Cottage Cheese Or Yogurt Manufacturing Plants That Used Flavorings, Percent Reporting	
Respondents..	32
Ramsey Laboratories.....	19%
Borden.....	16%
Diamond Shamrock.....	16%
Richardson & Holland.....	16%
American Food Labs.....	13%
Food Producers Int'l.....	9%
Shade Foods.....	6%
Alpha Aromatics.....	3%
Blanke-Baer.....	3%
Consolidated Flavor.....	3%
Dari-Tech.....	3%
Fantasy Flavors.....	3%
Smucker.....	3%
*Miscellaneous (mentioned once each).....	25%
Other, not specified.....	3%

Average number of suppliers per user plant..... 1.4

*Written-in by respondents.

CULTURE MEDIA

Suppliers for 1979 cheese output

	Percent of Cheese-Making Plants Reporting
Respondents..	79
Marschall Div. of Miles Lab...	63%
Chr. Hansen's.....	52%
Galloway West.....	14%
Pfizer.....	11%
Dederich.....	8%
Dairyland Food Labs.....	5%
G. B. Fermentation.....	1%
Other.....	8%

Average number of suppliers per user plant..... 1.6

CULTURES/COAGULANTS

Suppliers for 1979 cheese output

	Percent of Cheese-Making Plants Reporting
Respondents..	87
Chr. Hansen's Lab.....	69%
Marschall Div. of Miles Lab...	67%
Pfizer.....	16%
Dairyland Food Labs.....	14%
Dederich.....	13%
Angevine-Funke.....	5%
Vivolac Cultures.....	3%
Microlife Technics.....	2%
Diamond Shamrock (formerly Vitex American).....	1%
Other.....	6%

Average number of suppliers per user plant..... 2.0

SALT

Suppliers for 1979 cheese output

	Percent of Cheese-Making Plants Reporting
Respondents..	85
Morton Salt.....	42%
Diamond Crystal Salt.....	41%
Hardy Salt.....	25%
Leslie Salt.....	6%
*Carey.....	2%
*Sterling.....	2%
*Watkins Salt.....	2%
*Miscellaneous (mentioned once each).....	6%

Average number of suppliers per user plant..... 1.3

*Written-in by respondents.

BASES (FRUIT DRINK)

If you package fruit drinks, which company's bases did you use in 1979?

Percent of (288 answering) dairy processing plants that package fruit drinks..... 46%

Among (127 answering) dairy processing plants that package fruit drinks, percent that used bases in 1979.. 89%

	Among Dairy Processing Plants That Used Fruit Drink Bases, Percent Reporting
Respondents..	113
Green Spot	43%
Bowey/Krim-Ko	18%
Consolidated Flavor	13%
Rocket	13%
National Flavors	9%
Blanke Baer	6%
Caulkins Indiantown Citrus	6%
Virginia Dare Extract	6%
Borden	4%
Citrus Central	4%
Southern Gold Citrus Products	4%
*Alcoma	2%
Ben Hill Griffin	2%
Dairy Substitutes	2%
Dari-Tech	2%
Diamond Shamrock	2%
*Globe	2%
H. P. Hood Citrus Div	2%
*Imperial	2%
*Orange Blossom	2%
*Seco	2%
Tropicana Products	2%
Lykes Pasco Packing	1%
Richardson & Holland	1%
J. Hungerford Smith	1%
*Miscellaneous (mentioned once each)	13%

Average number of suppliers per user plant..... 1.6

*Written-in by respondents.

CORN SYRUPS

"Which corn syrup(s) did you use in 1979?"

Percent of (260 answering) dairy processing plants that used any..... 47%

	Among Dairy Processing Plants That Used Corn Syrup, Percent Reporting
Respondents..	121
Hubinger.....	26%
A. E. Staley.....	25%
A.D.M. Sweetners.....	20%
American Maize Products.....	20%
Clinton Corn Processing.....	16%
Corn Products (formerly CPC Int'l).....	13%
Other.....	11%

Average number of suppliers per user plant..... 1.3

APPENDIX

1. Questionnaire

2. Index

Note: If this is a multi-plant company, please answer only for the plant where you spend the largest part of your time.

START HERE

1. Does the establishment at this location **process** dairy products, or only distribute them? (please check)

(5)-1 ☐ Process one or more dairy products
2 ☐ Distribute only
3 ☐ Other (please specify) _____

If you only distribute – **without** processing – fluid milk or other dairy products at this location, please skip to question 21.

2. If this plant processes dairy products, which one(s)? (please check all that apply)

(6)-1 ☐ Packaged fluid milk
2 ☐ Cottage cheese
3 ☐ Other cultured dairy products
4 ☐ Ice cream
5 ☐ Cheese, natural or process
6 ☐ Butter
7 ☐ Other processed dairy products (dry, evaporated, or condensed milk, etc)

3. Who made your **HTST heat exchanger**? (please check)

(7)-1 ☐ Do not have any
2 ☐ A.P.V.
3 ☐ Cherry–Burrell
4 ☐ Chester–Jensen
5 ☐ Crepaco
6 ☐ DeLaval
7 ☐ Kusel Equipment
8 ☐ York
9 ☐ Other (please specify) _____

4. Who is the manufacturer of your **cryoscope**? (please check)

(8)-1 ☐ Do not have any
2 ☐ Advanced Instruments
3 ☐ Fiske
4 ☐ Precision Systems
5 ☐ Other (please specify) _____

5. Who provided your **solids/moisture analyzer**? (please check)

(9)-1 ☐ Do not have any
2 ☐ Accurate Metering Systems
3 ☐ Berwind Instruments
4 ☐ CEM Corporation
5 ☐ Foss America
6 ☐ Motorola
7 ☐ Neotec
8 ☐ Photovolt
9 ☐ Other (please specify) _____

6. Who provided your **fat analyzer**? (please check)

(10)-1 ☐ Do not have any
2 ☐ Accurate Metering Systems
3 ☐ American Metering Systems
4 ☐ Berwind Instruments
5 ☐ Computer Concepts
6 ☐ Economics Laboratory
7 ☐ Foss America
8 ☐ Neotec
9 ☐ On–Line Instrumentation
0 ☐ Other (please specify) _____

If you do **not** package fluid milk, please skip to question 8.

7. If you package **fluid milk. . .**

(a) Which **paper cartons** for fluid milk did you use in 1979? (please check)

(11)-1 ☐ Did not use
2 ☐ Dairy–Pak
3 ☐ Georgia Pacific
4 ☐ International Paper, Liquid Packaging Div.
5 ☐ Potlatch, Packaging Div.
6 ☐ Westvaco Milk Carton Div.
7 ☐ Weyerhaeuser
8 ☐ Other (please specify) _____

(b) Which HDPE **resin(s)** for your in–plant blow–molded single service plastic milk–jugs did you use in 1979? (please check)

(12)-1 ☐ Did not make blow–molded jugs
2 ☐ Allied Chemical
3 ☐ Amoco Chemicals
4 ☐ Arco/Polymers
5 ☐ Chemplex
6 ☐ Dow Chemical
7 ☐ Gulf
8 ☐ Phillips
9 ☐ Soltex Polymer
0 ☐ USI Chemicals
x ☐ Other (please specify) _____

(c) Who supplied your returnable **polycarbonate** milk **containers**? (please check)

(13)-1 ☐ Did not use any
2 ☐ General Electric
3 ☐ Graham Polytrip
4 ☐ Liqui–Box
5 ☐ Mobay Chemical
6 ☐ Other (please specify) _____

(d) Who made your milk **filling** equipment (please check all that apply)

Gallon Filler(s)

(14)-1 ☐ Do not have any
2 ☐ Cherry–Burrell
3 ☐ Ex–Cell–O
4 ☐ Federal Mfg.
5 ☐ Filler Specialties
6 ☐ Fogg Filler
7 ☐ Hercules
8 ☐ Remy
9 ☐ Other (please specify) _____

One–Half Gallon Filler(s)

(15)-1 ☐ Do not have any
2 ☐ Cherry–Burrell
3 ☐ Ex–Cell–O
4 ☐ Federal Mfg.
5 ☐ Filler Specialties
6 ☐ Fogg Filler
7 ☐ Hercules
8 ☐ NIMCO
9 ☐ Other (please specify) _____

Quart, Pint, One–Half Pint Filler(s)

(16)-1 ☐ Do not have any
2 ☐ Cherry–Burrell
3 ☐ Ex–Cell–O
4 ☐ Filler Specialties
5 ☐ Fogg Filler
6 ☐ Hercules
7 ☐ Milliken Packaging
8 ☐ NIMCO
9 ☐ Pitcher Pak
0 ☐ Other (please specify) _____

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(e) Which **plastic closures** for milk bottles did you use in 1979? (please check)

(17)-1 ☐ Did not use any

2 ☐ Alcoa
3 ☐ Aussie Cap
4 ☐ Blackhawk Molding
5 ☐ Cap Snap Seal
6 ☐ Champion Packages, Midwest–Pak Div.
7 ☐ Crown Zellerbach
8 ☐ Dairy Cap
9 ☐ Maxcap
(18)-1 ☐ Northern Engineering & Plastics (NEPCO)
2 ☐ Owens–Illinois
3 ☐ Seal–Kap Packaging
4 ☐ Segen Industries
5 ☐ Sun Industries (KLM)
6 ☐ Other (please specify) _____

(f) Who made your plastic or wire milk **cases**? (please check)

(19)-1 ☐ Do not use any

2 ☐ Amoco Chemicals
3 ☐ Cumberland
4 ☐ Erie Crate & Mfg.
5 ☐ Langer Mfg.
6 ☐ Piper Industries, Wire Products Div.
7 ☐ Rehrig–Pacific
8 ☐ Scepter
9 ☐ Tedruth Plastics
0 ☐ United Steel and Wire
x ☐ Other (please specify) _____

(g) Which bulk milk/ice cream dispenser–packaging system(s) did you use in 1979? (please check)

(20)-1 ☐ Did not use any

2 ☐ B–Bar–B
3 ☐ General Films
4 ☐ Liqui–Box
5 ☐ Parish Manufacturing
6 ☐ Scholle
7 ☐ Other (please specify) _____

If you do **not** make ice cream, please skip to question 9.

8. If you manufacture **ice cream**. . .

(a) Which of the following ingredients did you use for your 1979 ice cream production? (please check all that apply)

(1) Chocolate flavorings

(21)-1 ☐ Did not use any

2 ☐ Alpha Aromatics
3 ☐ Ambrosia Chocolate
4 ☐ American Food Labs.
5 ☐ Bessire
6 ☐ Blanke Baer
7 ☐ Borden
8 ☐ Consolidated Flavor
9 ☐ Continental Colloids
0 ☐ Diamond Shamrock
x ☐ David Michael
y ☐ Eskimo Flavors
(22)-1 ☐ Fantasy Flavors
2 ☐ Heath
3 ☐ Hooton Chocolate
4 ☐ Robert A. Johnston
5 ☐ National Flavors (Bowey/Krim–Ko)
6 ☐ Popsicle
7 ☐ Richardson & Holland
8 ☐ Ritter
9 ☐ Shade Foods
0 ☐ J. Hungerford Smith
x ☐ Spring Tree
y ☐ C. J. Van Houten
(23)-1 ☐ Van Leer
2 ☐ Virginia Dare Extract
3 ☐ Wessanen
4 ☐ Other (please specify) _____

(2) Vanilla flavorings

(24)-1 ☐ Did not use any

2 ☐ Alpha Aromatics
3 ☐ American Food Labs.
4 ☐ Beck Vanilla Products
5 ☐ Blanke Baer
6 ☐ Consolidated Flavor
7 ☐ David Michael
8 ☐ National Food Ingredient
9 ☐ Nielsen–Massey Vanillas
(25)-1 ☐ Northville Labs.
2 ☐ Ritter
3 ☐ Shade Foods
4 ☐ Virginia Dare Extract
5 ☐ Other (please specify) _____

(3) Fruit and fruit flavors

(26)-1 ☐ Did not use any

2 ☐ Alpha Aromatics
3 ☐ American Food Labs.
4 ☐ Bessire
5 ☐ Blanke Baer
6 ☐ Borden
7 ☐ Consolidated Flavor
8 ☐ Dari–Tech
9 ☐ David Michael
0 ☐ Diamond Shamrock
x ☐ Dickinson Family
y ☐ Eskimo Flavors
(27)-1 ☐ Fantasy Flavors
2 ☐ Guernsey Dell
3 ☐ G. P. Gundlach
4 ☐ National Food Ingredient
5 ☐ Northville Labs.
6 ☐ Richardson & Holland
7 ☐ Shade Foods
8 ☐ J. Hungerford Smith
9 ☐ Smuckers
0 ☐ Star Kay White
x ☐ Virginia Dare Extract
y ☐ Other (please specify) _____

(4) Nuts

(28)-1 ☐ Did not use any

2 ☐ Ace Pecan
3 ☐ Calfifornia Almond Growers (Blue Diamond)
4 ☐ Continental Nut
5 ☐ Diamond/Sunsweet (formerly Diamond Walnut Growers)
6 ☐ T. M. Duché Nut
7 ☐ Funsten Nut Div. of Pet Foods
8 ☐ Hammons Products
9 ☐ Jimbos Jumbos
0 ☐ Tenneco West (Sun Giant)
x ☐ Other (please specify) _____

(5) Stabilizers and emulsifiers

(29)-1 ☐ Did not use any

2 ☐ Alpha Aromatics
3 ☐ American Food Labs.
4 ☐ Blanke–Baer
5 ☐ Borden
6 ☐ Continental Colloids
7 ☐ Consolidated Flavor
8 ☐ Crest
9 ☐ Dari–Tech
0 ☐ David Michael
x ☐ Diamond Shamrock (formerly Vitex American)
y ☐ FMC Food and Pharmaceutical Div.
(30)-1 ☐ Germantown Manufacturing
2 ☐ Grindsted
3 ☐ Popsicle
4 ☐ Shade Foods
5 ☐ Spring Tree
6 ☐ Stabilized Products
7 ☐ Star Blends
8 ☐ Stauffer Chemical (Milk Proteins)
9 ☐ Stein Hall
0 ☐ Virginia Dare Extract
x ☐ Other (please specify) _____

(b) Who manufactured your ice cream carton **filler(s)**? (please check)

(31)-1 ☐ Do not have any

2 ☐ Anderson Bros.
3 ☐ Lily Div., Owens–Illinois
4 ☐ Sealright
5 ☐ Other (please specify) _____

(c) Which manufacturer's ice cream **cartons** did you use in 1979? (please check all that apply)

(32)-1 ☐ Did not use any

2 ☐ American Can
3 ☐ Blanke–Baer
4 ☐ Brown
5 ☐ Cardinal
6 ☐ Champion Packages
7 ☐ Container Corp. of America
8 ☐ Economy Folding Box
9 ☐ Eskimo Pie
0 ☐ Fantasy Flavors
x ☐ G. P. Gundlach
y ☐ International Paper, Liquid Packaging Div.
(33)-1 ☐ Maryland Cup
2 ☐ National Ice Cream Enterprises
3 ☐ Olinkraft
4 ☐ Potlatch Packaging Div.
5 ☐ Sealright
6 ☐ St. Regis
7 ☐ Other (please specify) _____

(d) Who made your ice cream **freezer(s)**? (please check)

(34)-1 ☐ Cherry-Burrell
2 ☐ Crepaco
3 ☐ Hoyer
4 ☐ Emery Thompson
5 ☐ Other (please specify) _____

(e) Who manufactured your **novelty–making** equipment? (please check)

(35)-1 ☐ Do not have any

2 ☐ Sumner H. Bates
3 ☐ Burry
4 ☐ Drumstick Div. of Big Drum
5 ☐ Eskimo Pie
6 ☐ FMC, Vitafreze Equipment/Polarmatic
7 ☐ Glacier Industries
8 ☐ Gram Equipment of America
9 ☐ Hoyer
0 ☐ Interbake Foods
X ☐ Le Roy Enterprises
Y ☐ National Ice Cream Ent.
(36)-1 ☐ Popsicle
2 ☐ Other (please specify) _____

(f) What make(s) of ice cream **display cabinets** do you use? (please check)

(37)-1 ☐ Do not use any

2 ☐ Coldin Cabinet
3 ☐ Displaymor Mfg.
4 ☐ Evans Mfg.
5 ☐ Grand Rapids
6 ☐ Hussman
7 ☐ Kelvinator Commercial Products
8 ☐ Master–Bilt Products
9 ☐ Mohawk Cabinet
0 ☐ C. Nelson Mfg.
X ☐ Schaefer
Y ☐ Star Cooler
(38)-1 ☐ Universal/Nolin
2 ☐ Other (please specify) _____

If you do **not** make cultured dairy products, please skip to question 12.

9. If you make cottage cheese or yogurt, who supplied the **flavorings** in 1979? (please check)

(39)-1 ☐ Did not use any

2 ☐ Alpha Aromatics
3 ☐ American Food Labs.
4 ☐ Balch
5 ☐ Blanke–Baer
6 ☐ Borden
7 ☐ Consolidated Flavor
8 ☐ Dari–Tech
9 ☐ David Michael
0 ☐ Diamond Shamrock
X ☐ Dickinson Family
Y ☐ Fantasy Flavors
(40)-1 ☐ Food Producers Int'l.
2 ☐ Guernsey Dell
3 ☐ G. P. Gundlach
4 ☐ Northville Labs.
5 ☐ Ramsey Laboratories
6 ☐ Richardson & Holland
7 ☐ Shade Foods
8 ☐ Smucker
9 ☐ Virginia Dare Extract
0 ☐ Other (please specify) _____

10. Which manufacturer's **cups** did you use for packaging cultured products in 1979? (please check all that apply)

(41)-1 ☐ Did not use any

2 ☐ American Can
3 ☐ Amoco Chemicals
4 ☐ Conex
5 ☐ Continental Can
6 ☐ Dow
7 ☐ Foster Grant
8 ☐ International Paper
9 ☐ Lily Div. of Owens–Illinois
0 ☐ Maryland Cup
X ☐ Rexcel
Y ☐ Sealright
(42)-1 ☐ Other (please specify) _____

11. Who manufactured your cultured product cup **filler(s)**? (please check)

(43)-1 ☐ Do not have any

2 ☐ American Can
3 ☐ Anderson Bros. Mfg.
4 ☐ Maryland Cup
5 ☐ Owens– Illinois
6 ☐ Remy
7 ☐ Sealright
8 ☐ Other (please specify) _____

If you do **not** manufacture natural or process cheese, please skip to question 14.

12. For your 1979 cheese output, please check who supplied the...

(a) **Culture Media**

(44)-1 ☐ Dairyland Food Labs
2 ☐ Dederich
3 ☐ G. B. Fermentation
4 ☐ Galloway West
5 ☐ Chr. Hansen's
6 ☐ Marschall Div. of Miles Lab.
7 ☐ N. S. Marketing
8 ☐ Pfizer
9 ☐ Other (please specify) _____

(b) **Cultures/Coagulants**

(45)-1 ☐ Angevine–Funke
2 ☐ Dairyland Food Labs.
3 ☐ Dederich
4 ☐ Diamond Shamrock (formerly Vitex American
5 ☐ Funke Dairy Supplies
6 ☐ Chr. Hansen's Lab.
7 ☐ Marschall Div. of Miles Lab.
8 ☐ Microlife Technics
9 ☐ Pfizer
0 ☐ Vivolac Cultures
X ☐ Other (please specify) _____

(c) **Salt**

(46)-1 ☐ Diamond Crystal Salt
2 ☐ Hardy Salt
3 ☐ Leslie Salt
4 ☐ Morton Salt
5 ☐ Other (please specify) _____

13. Do you package cheese in rolled **film** or **plastic bags**?

(47)-1 ☐ Yes 2 ☐ No

If " yes," ...

(a) Who made the film you used in 1979? (please check all that apply)

(48)-1 ☐ American Can
2 ☐ B–Bar–B
3 ☐ Cryovac
4 ☐ Curwood
5 ☐ Dow
6 ☐ General Films
7 ☐ Milprint
8 ☐ St. Regis
9 ☐ Union Carbide
0 ☐ Vilutis
X ☐ Other (please specify) _____

(b) Who manufactured the cheese–wrapping machine(s) you use? (please check)

(49)-1 ☐ American Can
2 ☐ Cryovac
3 ☐ Hayssen Mfg.
4 ☐ Len E. Ivarson
5 ☐ Koch Supplies
6 ☐ Milprint
7 ☐ Standard Packaging
8 ☐ Tipper–Tie
9 ☐ Other (please specify) _____

14. What make(s) of evaporator and/or dryer do you have? (please check)

(50)-1 ☐ Do not have any

2 ☐ Anhydro
3 ☐ A.P.V.
4 ☐ Damrow
5 ☐ Holvrieka
6 ☐ Marriott Walker
7 ☐ Maxum Engineering
8 ☐ Niro Atomizer
9 ☐ C. E. Rogers
0 ☐ Stork–Bowen
X ☐ Wiegand Evaporators
Y ☐ Other (please specify) _____

15. Do you package fruit drinks? (51)-1 ☐ Yes 2 ☐ No

(a) If "yes," which company's bases did you use in 1979? (please check all that apply)

(52)-1 ☐ Did not use any

2 ☐ Alpha Aromatics
3 ☐ American Food Labs.
4 ☐ Ben Hill Griffin
5 ☐ Blanke Baer
6 ☐ Borden
7 ☐ Bowey/Krim–Ko
8 ☐ Caulkins Indiantown Citrus
9 ☐ Citrus Central
0 ☐ Consolidated Flavor
X ☐ Dairy Substitutes
Y ☐ Dari–Tech
(53)-1 ☐ David Michael
2 ☐ Diamond Shamrock
3 ☐ Green Spot
4 ☐ H. P. Hood Citrus Div.
5 ☐ Lykes Pasco Packing
6 ☐ National Flavors
7 ☐ Richardson & Holland
8 ☐ Rocket
(54)-1 ☐ J. Hungerford Smith
2 ☐ Southern Gold Citrus Products
3 ☐ Tropicana Products
4 ☐ V & E Kohnstamm
5 ☐ Virginia Dare Extract
6 ☐ Other (please specify) _____

16. Which corn syrup(s) did you use in 1979? (please check)

(55)-1 ☐ Did not use any

2 ☐ A.D.M. Sweetners
3 ☐ American Maize Products
4 ☐ Clinton Corn Processing
5 ☐ Corn Products (formerly CPC Int'l)
6 ☐ Hubinger
7 ☐ A. E. Staley
8 ☐ Other (please specify) _____

17. Who made the **pumps** and **valves** you use to control liquid product flow? (please check all that apply)

(56)-1 ☐ Do not pump liquid product

2 ☐ Alfa–Laval (De Laval Separator)
3 ☐ Alloy Products
4 ☐ A.P.V.
5 ☐ Cherry–Burrell
6 ☐ Crepaco
7 ☐ G & H Products
8 ☐ Ladish, Tri–Clover Div.
9 ☐ Sta–Rite Industries
0 ☐ Superior Stainless Inc.
X ☐ Tanaco Products
Y ☐ L. C. Thomsen & Sons
(57)-1 ☐ Tri–Canada
2 ☐ Waukesha Foundry
3 ☐ Other (please specify) _____

18. Who provided your materials or product **conveyor(s)** ? (please check)

(58)-1 ☐ Do not have any

2 ☐ Crepaco
3 ☐ Dairy Conveyor
4 ☐ Ex–Cell–O Materials Handling
5 ☐ G. W. Haab
6 ☐ Mojonnier Bros.
7 ☐ Other (please specify) _____

19. Which conveyor chain **lubrication** did you use in 1979? (please check)

(59)-1 ☐ Did not use any
2 ☐ BASF Wyandotte
3 ☐ Bonewitz Chemical
4 ☐ Diversey Chemical
5 ☐ Dubois Chemicals
6 ☐ A. C. Fergusson
7 ☐ Klenzade Div. of Economics Laboratory
8 ☐ Peck's Products
9 ☐ Stauffer Chemical
0 ☐ Other (please specify) _____

20. Who supplied your **cleaners** and **santizers** in 1979? (please check all that apply)

(60)-1 ☐ BASF Wyandotte
2 ☐ Bonewitz
3 ☐ Chemidyne
4 ☐ Diversey
5 ☐ Dubois Chemical
6 ☐ A. C. Fergusson
7 ☐ H. B. Fuller, Monarch Chemicals Div.
8 ☐ Klenzade
9 ☐ Morton Salt
0 ☐ Oakite Products
X ☐ Pennchem Dept. (Pennwalt Corp.)
Y ☐ Southland Chemicals
(61)-1 ☐ Stauffer Chemical
2 ☐ Time
3 ☐ West Agro Chemical
4 ☐ Other (please specify) _____

21. Who supplied your wholesale delivery insulated **truck bodies**? (please check)

(62)-1 ☐ Do not have any

2 ☐ Atlas Truck Body
3 ☐ Hackney Bros. Body
4 ☐ Hercules
5 ☐ Johnson Truck Bodies
6 ☐ Kidron Body
7 ☐ Morgan Trailer
8 ☐ Murphy Manufacturing
9 ☐ Bill Rivers Trailers
0 ☐ Other (please specify) _____

22. Who made your larger trucks and tractors – those with a gross vehicle weight of 20,000 lbs. and over? (please check all that apply)

(63)-1 ☐ Have no trucks of that size

2 ☐ Chevrolet
3 ☐ Diamond Reo
4 ☐ Dodge
5 ☐ Ford
6 ☐ GMC
7 ☐ International Harvester
8 ☐ Mack
9 ☐ Mercedes–Benz
0 ☐ Peterbilt
X ☐ White
Y ☐ Other (please specify) _____

23. Please check the supplier(s) of your trailer refrigeration units.

(64)-1 ☐ Have no trailers

2 ☐ Carrier–Transicold
3 ☐ Dole Refrigerating
4 ☐ Thermo King
5 ☐ Trane
6 ☐ Other (please specify) _____

24. What is your own title or chief job responsibility? _____

AMERICAN
DAIRY REVIEW

Mount Morris, Illinois

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